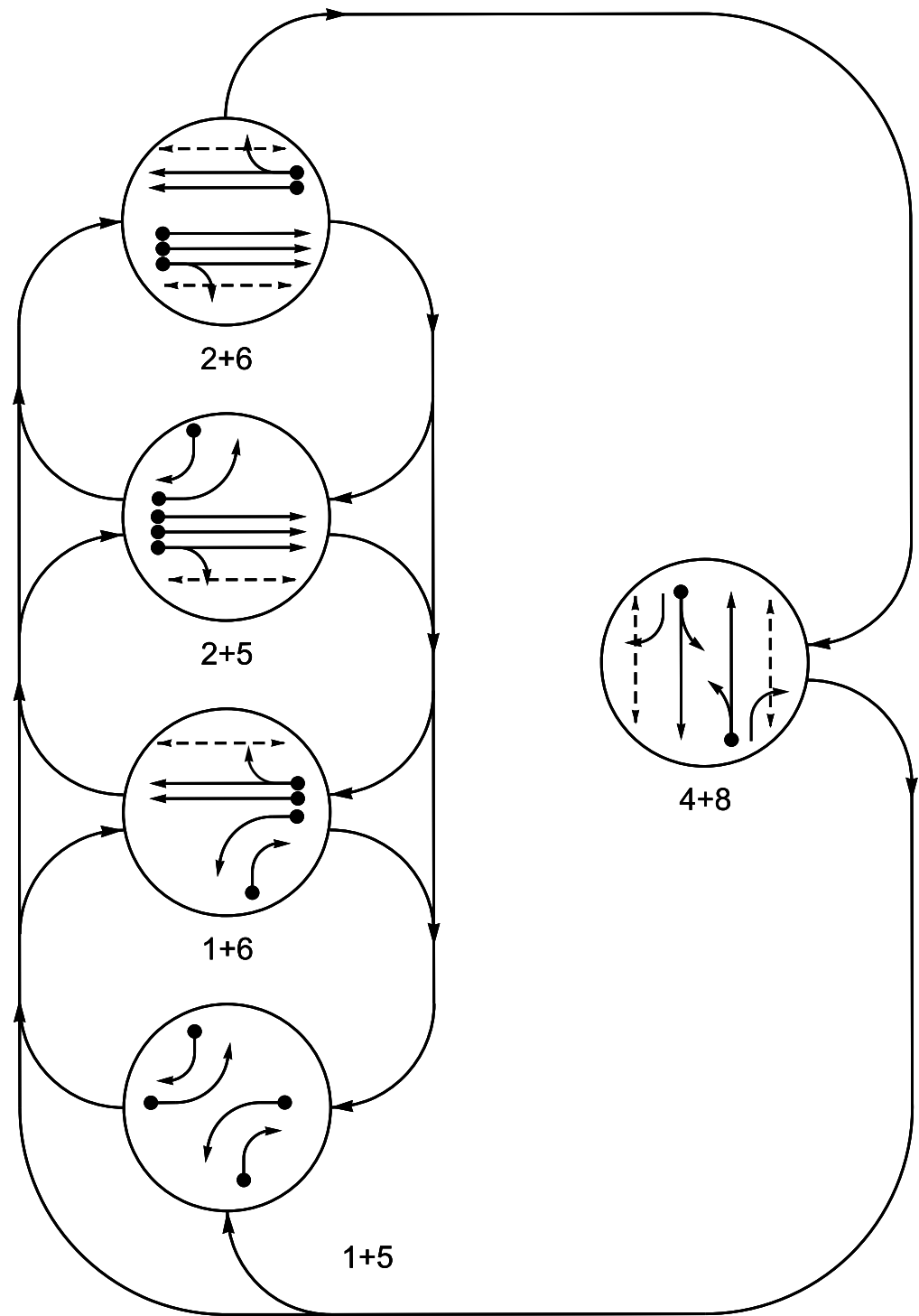


5 Phase
Fully Actuated
Hickory City Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Set all detector units to presence mode.
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

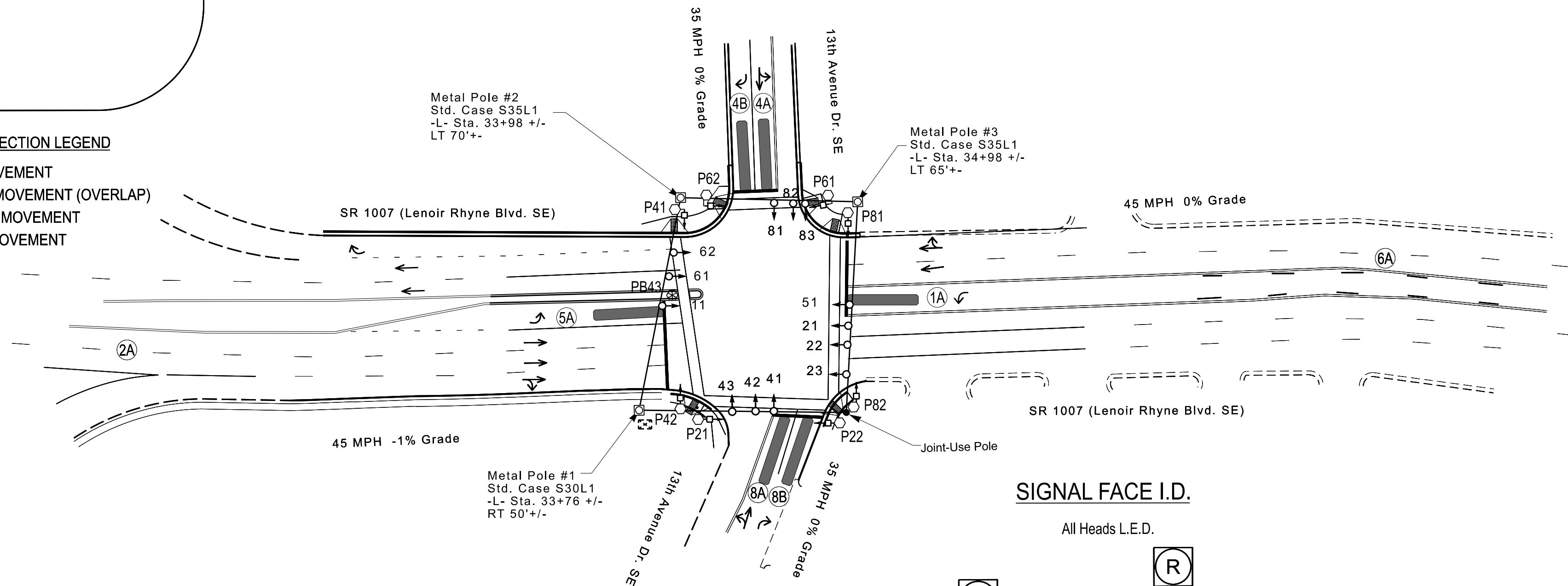
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE					
	1+5	1+6	2+5	2+6	4+8	5+8
11	←	←	→	→	→	→
21, 22, 23	R	R	G	G	R	R
41, 42	R	R	R	R	G	R
43	→	→	→	→	R	R
51	←	←	←	←	R	R
61, 62	R	G	R	G	R	R
81, 82	R	R	R	R	G	R
83	→	→	R	R	R	R
P21, 22	DW	DW	W	W	DW	DRK
P41, 42	DW	DW	DW	DW	W	DRK
P61, P62	DW	W	DW	W	DW	DRK
P81, P82	DW	DW	DW	DW	W	DRK

SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

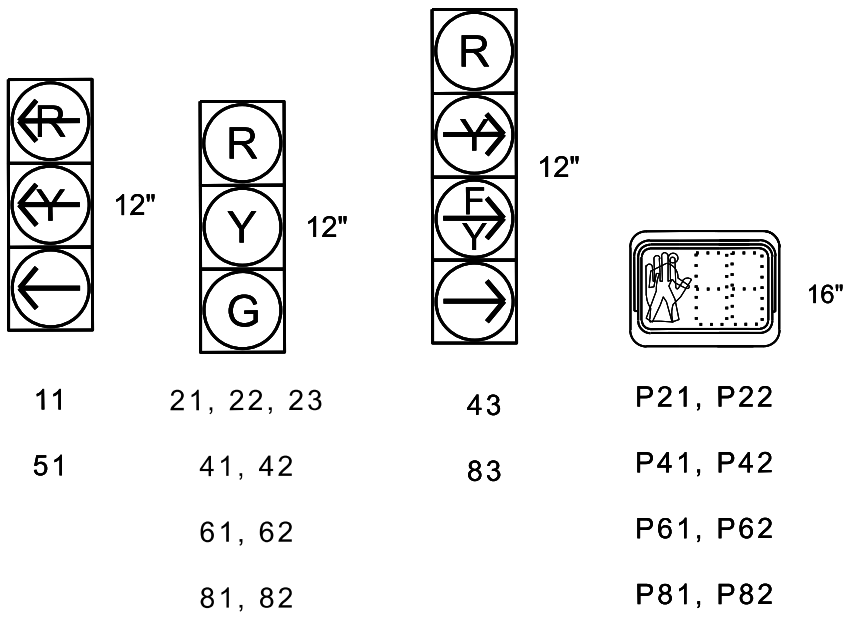
						DETECTOR PROGRAMMING														
						ASSIGNED PHASE	TIMING		OPERATION MODE								SWITCH	SYSTEM LOOPS	STATUS	
									0	1	2	3	4	5	6	7			NEW	EXISTING
							VEHICLE	PEDESTRIAN												
LOOP NO.	SIZE (FT)	TURNS	DIST. FROM STOP LINE (FT)	NEW	EXISTING	DELAY	EXTEND (STRETCH)	VEHICLE	PEDESTRIAN	1 CALL	STOP A	STOP B	PROT/PER LEFT	PROT/PER THROUGH	AND	SWITCH	SYSTEM LOOPS	NEW	EXISTING	
1A	*	*	0	-	X	1	3.0	-	X	-	-	-	-	-	-	-	-	-	X	
4A	*	*	0	-	X	4	3.0	-	X	-	-	-	-	-	-	-	-	-	X	
4B	*	*	0	-	X	4	15.0	-	X	-	-	-	-	-	-	-	-	-	X	
5A	*	*	0	-	X	5	-	-	X	-	-	-	-	-	-	-	-	-	X	
8A	*	*	0	-	X	8	3.0	-	X	-	-	-	-	-	-	-	-	-	X	
8B	*	*	0	-	X	8	15.0	-	X	-	-	-	-	-	-	-	-	-	X	

* Multi -Zone Microwave Detection



SIGNAL FACE I.D.

All Heads L.E.D.



FEATURE	PHASE					
	1	2	4	5	6	8
Min Green*	7	12	7	7	12	7
Passage Gap*	2.0	2.0	2.0	2.0	2.0	2.0
Maximum Green*	15	90	25	15	90	25
Yellow Change	3.0	4.6	3.8	3.0	4.6	3.8
Red Clear	2.6	1.5	2.5	3.2	1.5	2.5
Walk*	-	14	13	-	12	14
Pedestrian Clear	-	18	24	-	9	24
Advance Walk	-	7	6	-	5	7
Added Initial*	-	-	-	-	-	-
Maximum Initial*	-	-	-	-	-	-
Time Before Reduction*	-	-	-	-	-	-
Time To Reduce*	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-
Vehicle Call Memory	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	LOCK	NON-LOCK
Dual Entry	-	-	ON	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Microwave Detection					
FUNCTION	SENSOR 1 (2A)			SENSOR 2 (6A)	
Channel	1			1	
Phase	2			6	
Direction of Travel	SB			NB	
Type	Priority			Priority	
Level	1	2	Queue	1	2
Discovery Zone (ft)	>= 750	<750	-	>= 750	<750
Range	900-100	600-100	150-100	900-100	600-100
Enable Speed	Y	Y	Y	Y	Y
Speed Range(mph)	35-100	35-100	1-35	35-100	35-100
Enable Estimated Time of Arrival	Y	Y	N	Y	N
Estimated Time of Arrival (sec)	2.5-10.0	2.5-6.5	-	2.5-10.0	2.5-10.0

LEGEND

- PROPOSED

 - Traffic Signal Head
 - Modified Signal Head
 - Sign
 - Pedestrian Signal Head
 - Type I Pedestrian Signal Head
 - Type II Pedestrian Signal Head
 - Metal Strain Poles
 - Signal Pole with Guy
 - Signal Pole with Sidewalk Guy
 - Inductive Loop Detector
 - Controller & Cabinet
 - Junction Box
 - 2-in Underground Conduit
 - Right of Way
 - Directional Arrow
 - Curb Ramp
 - Non-Intrusive Detection Zone
- EXISTING

 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A

Signal Upgrade - Final

Prepared in the Offices of:
Transportation Mobility and Safety Design
NORTH CAROLINA
SIGNAL DESIGN SECTION
750 N. Greenfield Pkwy, Garner, NC 27529

SR 1007 (Lenoir -Rhyne Blvd)
at
SR 2267 (13th Avenue Drive SE)
Division 12
Catawba County
Hickory
PLAN DATE: August 2026
REVIEWED BY: R. N. Zinser
PREPARED BY: Adja Fall
REVIEWED BY:
REVISIONS
INIT.
DATE
08/12/2026
R. Nicholas Zinser
DATE
12-1218

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
RICHARD N. ZINSER
043914
SIG. INVENTORY NO.